

## THE IDENTITY OF *CYCLOPIDES PAOLA* PLÖTZ (HESPERIIDAE)

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**ABSTRACT.** *Cyclopides paola* Plötz, described from Angola, is placed in the combination *Kedestes nerva paola* (Plötz), new status. *Kedestes protensa* Butler, previously regarded as a subspecies or synonym of *K. paola*, is reinstated as a species. Records of *K. nerva* (Fabricius) from Zimbabwe and Kenya are rejected.

**Additional key words:** Africa, taxonomy, *Kedestes protensa*, *K. nerva*.

Ever since Plötz (1884) described *Cyclopides paola* from Angola, its identity has been a source of confusion. Its generic placement was questioned by Holland (1896), while Swinhoe (1908) referred it to *Kedestes* Watson, and published a color figure based on Plötz's original unpublished illustration, noting that it could belong to either *K. nerva* (Fabricius) (= *tucusa* (Trimen)) or *K. protensa* Butler. Evans (1937) regarded it as conspecific with *K. protensa*, with the latter a subspecies. The presence of a complete marginal line on the underside of the hindwing in the figure of *paola*, plus Evans' association of the taxon with *K. protensa*, led Hancock and Gardiner (1982) to synonymize the two, since Evans' (1937) interpretation of *paola* as a subspecies was at variance with available material. As used by Pennington (1978), the name *paola* is now known to refer to three separate species: *K. protensa*, *K. michaeli* Gardiner & Hancock and *K. monostichus* Hancock & Gardiner (Hancock & Gardiner 1982).

The capture in NW Zambia of a fresh pair of *K. nerva* (Ikelenge, 5 May 1983, D. Heath; in A. Heath Collection, Cape Town), and a re-examination of the male from Mwinilunga recorded and illustrated in Hancock and Gardiner (1982) (in Natural History Museum of Zimbabwe, Bulawayo), revealed minor differences in wing pattern between them and typical examples of *nerva* from South Africa, although there are no discernible differences in male genitalia. These Zambian males of *K. nerva* agree more closely with the figure of *paola* given by Swinhoe (1908) than do specimens of *K. protensa* from the same area (figured by Hancock & Gardiner 1982 as *paola*), particularly with regard to the elongate white spot in space 2, the pale area beyond the cell on the forewing underside, and the ground color and distribution of the black spots on the hindwing underside. In size too, the Zambian *nerva* agree with the type of *paola*, while *protensa* is a distinctly larger species. The marginal line on the hindwing underside is a series of streaks, interrupted at the veins, and not a continuous line as shown in Swinhoe's (1908) figure.

The original description of *paola* by Plötz (1884) is sketchy, and the

marginal line on the hindwing is not mentioned. The type is apparently lost, and subsequent interpretations of the species appear to be based on Plötz's unpublished plate (the present whereabouts of which, if still extant, is unknown to me), and on the reproductions by Swinhoe (1908) and Aurivillius (1925). The continuous marginal line on the hindwing, evident in figures of the latter two authors, is apparently an error. It may well be present also on the original figure, as the line appears continuous unless examined closely; the streaks are longer and not as distinct as in typical examples of *K. nerva*.

*Kedestes protensa* (= *K. paola* of Hancock & Gardiner 1982) and *K. nerva* differ in wing size and in shape of male genitalia, particularly the serrate apical area of the harpe, which is narrower and projecting in *K. nerva*. In pattern, apart from the hindwing marginal line, the two species differ in the arrangement of the black spots in the postdiscal band on the hindwing underside; the inner row of spots is distinctly W-shaped in *K. nerva*, V-shaped in *K. protensa*. The taxon *paola* differs from both these species in the reduced pale spot in space 1b of the forewing, but it agrees with *K. nerva* in male genitalia and other pattern characters. The ground color of the hindwing underside is browner in *paola* than in the other species, but this color is approached in some examples of *nerva* from South Africa, although an orange tint is usually evident. Accordingly, *K. paola* is placed here as a subspecies of *K. nerva*. Illustrations of these taxa may be found in Hancock and Gardiner (1982) and Pennington (1978), but in both cases Zambian examples of *K. protensa* are misidentified as *K. paola*. Hancock and Gardiner (1982) also figured male genitalia.

The establishment of the true identity of *K. paola* necessitates an adjustment to the nomenclature of *K. nerva* and *K. protensa* from that given in Hancock and Gardiner (1982). *Kedestes paola* is separable as a subspecies of *K. nerva* on pattern characters. The revised nomenclature is presented below.

### *Kedestes nerva nerva* (Fabricius)

*Hesperia nerva* Fabricius, 1793:340. Type from "Indiis", locality error, *recte* Natal, South Africa.

*Pyrgus tucusa* Trimen, 1883:359. Type ♀ from Natal, South Africa.

This subspecies appears to be restricted to South Africa, being recorded from the provinces of Natal and Transvaal. Records of Zambia (Hancock & Gardiner 1982) belong to the following subspecies, while those from Zimbabwe (Pinhey 1949, Pennington 1978) and possibly Kenya (Evans 1946) appear to belong to *K. michaeli*. Examination of a female of *K. michaeli* from Zimbabwe (Bromley, 23 August 1967, E. O. Martyn; in Natural History Museum of Zimbabwe, Bulawayo), iden-

tified by the collector as *K. nerva*, illustrates the confusion that existed between these two species, making the untraced Salisbury record of *K. nerva* noted by Hancock and Gardiner (1982) very unlikely. Evans (1946) noted that the Kenyan specimens he examined were not quite typical of *nerva*, and these and the Zimbabwe records are therefore rejected.

***Kedestes nerva paola* (Plötz), new status**

*Cycloptides paola* Plötz, 1884:392. Type ♂ from Angola.

This subspecies is known from Angola and the Mwinilunga district of NW Zambia. It differs from typical *nerva* in the reduced white spot in space 1b on the forewing, and in the browner ground color and better developed marginal streaks on the hindwing underside. Evans (1937) appears to have confused this taxon with *K. michaeli*, and all his records from Zambia, Zaire, and Angola probably belong to this latter species, suggested by the presence of only a single cell spot on the forewing. This cell spot is divided into two in *nerva* and *protensa*.

***Kedestes protensa* Butler, revised status**

*Kedestes protensa* Butler, 1901:59. Type ♂ from N. Nigeria.

*Kedestes chacoides* Gaede, 1915:126. Type ♂ from Busantare, Cameroon.

*Kedestes paola protensa* Butler; Evans, 1937:84.

*Kedestes paola*; Pennington, 1978:fig. 724 ii; Hancock & Gardiner, 1982:120. Misidentifications.

This species is known from Sierra Leone, Nigeria, Cameroon, Uganda, S Sudan, and NW Zambia. It appears to prefer swampy areas of grassland, a moister habitat than that apparently preferred by *K. nerva*.

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